

ABSTRACT

5 A fuel cell power system practical for use in a vehicle includes a fuel cell, a
first hydrogen storage vessel having a first hydrogen absorbing material storing and
releasing hydrogen, a catalytic combustor that heats the first hydrogen storage
vessel so as to release hydrogen in order to supply hydrogen to the fuel cell, and a
10 second hydrogen storage vessel having a second hydrogen absorbing material
storing and releasing hydrogen and has a hydrogen release temperature that is
lower than that of the first hydrogen absorbing material, the second hydrogen
storage vessel releasing hydrogen as a fuel for the catalytic combustor under
heating by waste heat from the fuel cell. Since the catalytic combustor can generate
15 high temperature heat, a hydrogen absorbing material having a high hydrogen
release temperature and a high hydrogen storage capacity per unit weight can be
used as the first hydrogen absorbing material.